Research Paper:

A study on effectiveness of weight reducing health clinic at Indore

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Received: March, 2011; Accepted: April, 2011

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ABSTRACT

Obesity is a problem, which is faced by the developed countries and the developing countries as well. Weight control will continue to be a national obsession for aesthetic reasons. Study was conducted on the effectiveness of Gym, relationship between diet and exercise and effectiveness of health clinics in attaining ideal weight in various anthropometrics measures such as height, weight, BMI, which were measured before and after the study. The diet counseling was given for a period of 6 month(entire duration of study). The body weight, BMI showed changes from the initial values. About 93.33% of obese males aware of knowledge of relationship between nutrition and exercise.60% of the volunteers showed high effectiveness in weight reduction by health clinics, in obese male 25% were found to reduce weight.

Rathi, Preeti, Rathi, Swati and Kothari, Nandini (2011). A study on effectiveness of weight reducing health clinic at Indore. *Asian J. Home Sci.*, **6**(1):61-63.

Key words: Weight, Health clinic, Diet counselling

The word gymnasium was used in ancient Greece ■ meaning a locality for both physical and intellectual education of younger men. The Greek word gymnasium means, "Place to be naked" and was used in ancient Greece to designate a locality for the education of younger men including physical education. Physical activity reduces the risk for many chronic diseases and conditions through its impact on weight management (Dube, 1995). Research continues to reveal additional positive health effects of physical activity (Ashwell et al., 1985 and Bray, 1982). Health clinics benefit increases with the amount of time an individual is active and with the intensity of physical activity. Specific exercise of the proven effect of regular moderate physical activity include: - weight control, control of appetite, control of high B.P., control of diabetes, reduction in the risk of CHD and reduces arthritis and disability, also in the risk for osteoporosis. Fitness is understanding a body, the cardiovascular, muscular endurance, musculoskeletal strength, flexibility, and ideal body composition. Obesity is a medical term used for overweight of human. It is a big issue in developing countries and a big percentage of population in India and abroad are suffering from obesity. For reducing and getting free from this problem, now-a-days weight reducing or fat reducing clinics are playing an important role. Exercise Machines have made this more effective in recent years.

Regular exercise in busy lives allows a person to focus at a particular muscle or a body part. Machines such as elliptical machine provides cross country skeing which can be done only in winter with a elliptical can be done at any part of the year. An exercise machine is something that can be easily accommodated at home to get a healthy life style and it is important to have a truly spectacular physique. This can be done with a proper combination of exercise machines and weight. But the importance of exercise and balanced diet can not be ignored. Different exercises for different muscles are abdominal gym exercise, triceps gym exercise, biceps gym exercise, forearm gym exercise, shoulder gym exercise, chest gym exercise, leg gym exercise and back gym exercise. Aerobic exercise is the only type of exercise that burns fat directly. Yoga, walking, swimming and rowing infact many more exercises can be aerobic if the level of effort is low and duration is high. The main problem with performing aerobic exercise to burn fat is that low intensity means less total calories to burn fat e.g., 30 minutes of walking may only burn 250 calories. Running is the queen of exercise in burning calories. On an average 135 pounds women will burn 490 calories by running at the rate 5 mph for an hour, and 920 calories at 9 mph.

EXPERIMENTAL PROCEDURE

There is no shortcut to truth: no way to knowledge of the universe except through the gateway of scientific method. The effectiveness of Gym on Anthropometrics measurements, the knowledge of relationship between diet and exercise, the effect of health clinic, the effect of calories consumption in diet and the amount of calorie use in physical exercise or activity, the awareness about nutrition in obese males have been studied. One hundred male persons (volunteers) of 35-50 years age (Table 1) with body weight more than 10-15 % of their respective desirable weight/height were studied in Indore. The weight reducing program, which was meant for reduction in body weight in present study, one type of weight reducing programme was studied. Physical exercise as suggested by the experts for weight reduction was included.

Table 1: Distribution of the samples with obesity on the basis of age		
Age in years	Members	
30-35	17	
35-40	29	
40-45	36	
45-50	18	
Total	100	

A schedule was formulated for collecting information regarding, meal pattern, knowledge of nutrition and awareness of nutrition. All the data collected through questionnaire method and anthropometrics measurementsi.e., age, weight, height BMI, waist circumference, hip circumference and desirable body weight. 40-45 min recall method was employed in the study for cardio workout survey. Diet survey of 24 hours dietary recall method was employed in this study for the diet survey. Diet counseling was taken of the subjects in the counseling. They were very well informed about the intake and combination of protein, carbohydrates, fibres, minerals and vitamins so that the subjects could loose weight effectively.

OBSERVATIONS AND ANALYSIS

The results of the present study have been discussed and presented under the following heads:

Anthropometrics measurement:

It was taken in order to find out the effect of exercise on weight reduction. Health clinics were effective in regulating the anthropometrics measurement in obese males. The data were collected and recorded in Table 2 and Fig. 1.

Table 2: Anthropometric measurement of obese males		
Physical measurement Mean		
Height- (ft)	5.71	
Weight (kg) BL	87.74	
Weight (kg) C	82.00	
BM 1 (BL)	28.43	
BMI (C)	25.39	

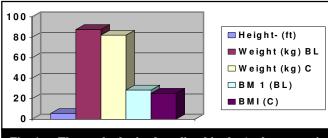


Fig. 1: The result obtained are listed in the Anthropometric Measurement of obese males

Table 3 indicates that the mean weight of the obese persons initially was 87.74 after the joining of health clinic weight of the obese person became 82.00 kg. The difference in their respective weight was 5.74 kg. The data was analysed statiscally using f test there was a significant difference in change in weight in obese persons.

Table 3: Comparative change in weight				
Weight(kg)	Physical exercise (n=100)		f ratio	
	Mean	(df=99)	(df=99)	$S1^2 \div S2^{2=}$
		$S1^{2}(V1)$	$S2^{2}(V2)$	
Baseline	87.74			
Current	82.00	181.37	128.08	1.418*
Difference	5.74			

^{*}indicates significance of value at P=0.05

The data presented in the Table 4 show that there was observed a significant difference in the BMI of the obese males.

Table 4: Comparative change in BMI (mean ratio)				
BMI	Mean	(df=99) S1 ² (V1)	(df=99) S2 ² (V2)	F ratio= $S1^2 \div S2^{2=}$
Baseline	28.43			
Current	25.39	21.60	14.13	1.52*
Difference	3.04			

^{*}indicates significance of value at P=0.05

The response of diet and exercise indicated that 93.33 per cent of the male were aware about their diet and exercise while 6.66 per cent were not aware of the same (Table 5).

Table 5: Knowledge of exercises in obes		veen diet and (n=100)
Knowledge of relationship between diet and exercises		
Response	Percenta	ge of male
Aware	93	3.33
Not aware	6.	.66

On observation of Table 6 it is evident that 60 per cent of health clinics were highly effective in obese males, while 25 per cent of health clinics were moderately effective in obese males and 15% had low effect on obese males (Fig. 2).

Table 6: Effectiveness of health clinic in obese males (n=100)		
Response effectiveness	Percentage of male obese	
Highly effective	60%	
Moderately effective	25%	
Low effective	15%	

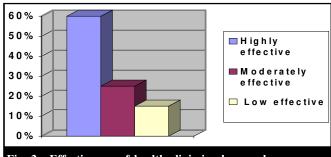


Fig. 2: Effectiveness of health clinic in obese males

Calorie burn in physical exercise:

An average of 500-600 calories were burned on various machines like treadmill, arctrainerer, upright and recanbint by cycles and water raower, which were very effective in weight loss in 'strength training' during the survey it was seen that using the equipment was the most effective workout for loosing weight. The equipment targeting targets muscles group and the smaller muscle *i.e.* leg extent for leg, low cable row and latpull down, for lattisimudorsi, chest press and pee-deck for pictorial major and miner were used. In each session of weight training, 400-500 calorie were burned which were very effective for weight loss. "Personal training" was also very effective in reducing the weight.

Aerobics classes were also very good techniques for loosing weight. For achieving a target heart rate and burn oil excess calories, participation in aerobic classes for 20-30 min. for 3 times a week can be very useful in weight loss.

Awareness of nutrition:

From Table 7 it is evident that 70% of obese males were highly aware of the effect of nutrition and about 20% of obese males had moderately awareness and 10% obese males were slightly aware about nutrition.

Table 7: Awareness of nutrition in obese person (n=100)		
Response awareness	Percentage of male	
Highly awareness	70%	
Moderately awareness	20%	
Low awareness	10%	

Conclusion:

Gyming was found to be effective in controlling the anthropometric measurements of obese males. It was observed that the obese males were aware about the relationship between diet and exercise. Health clinic was found to be effective on obese male. Physical exercise was found to be highly effective in burning the calories consumed by an individual. It was found that 70 % of the obese males were found to be highly aware about the effect of nutrition on the obesity.

Acknowledgement:

We express our deep gratitude to Sweety and Swati. They have been the sole motivator and guiding force for us to take up this research work.

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